



# OIL ANALYSIS REPORT

WEAR	<b>ABNORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>



Area  
**Store 2 - Beaver [RO#134738]**  
Machine Id  
**JOHN DEERE 350G 1FF350GXCKF814126**  
Component  
**Diesel Engine**  
Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (7 GAL)**

## RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>LEC0035526</b>	LEC0032332	LEC0022507
Sample Date		Client Info		<b>20 Dec 2022</b>	24 Jun 2022	07 Oct 2021
Machine Age	hrs	Client Info		<b>1999</b>	1384	748
Oil Age	hrs	Client Info		<b>615</b>	636	748
Filter Age	hrs	Client Info		<b>615</b>	636	748
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## WEAR

A decrease in the copper level is noted. The nickel level is abnormal. The iron level is abnormal. Cylinder, crank, or cam shaft wear is indicated.

Iron	ppm	ASTM D5185m	>51	<b>▲ 68</b>	▲ 67	84
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	2	2
Nickel	ppm	ASTM D5185m	>5	<b>▲ 17</b>	▲ 27	▲ 17
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	5	6
Lead	ppm	ASTM D5185m	>26	<b>0</b>	1	2
Copper	ppm	ASTM D5185m	>26	<b>20</b>	▲ 39	▲ 122
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	2	4
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

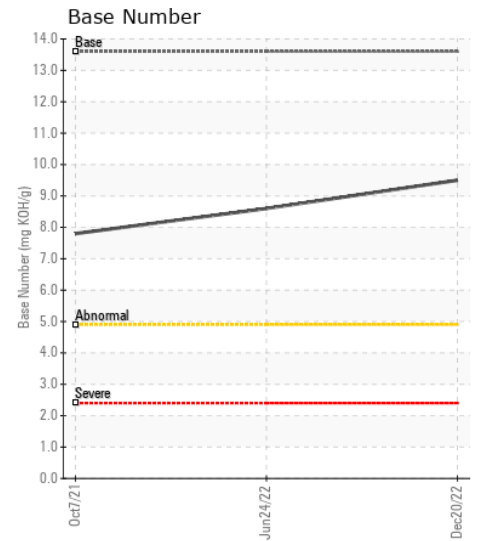
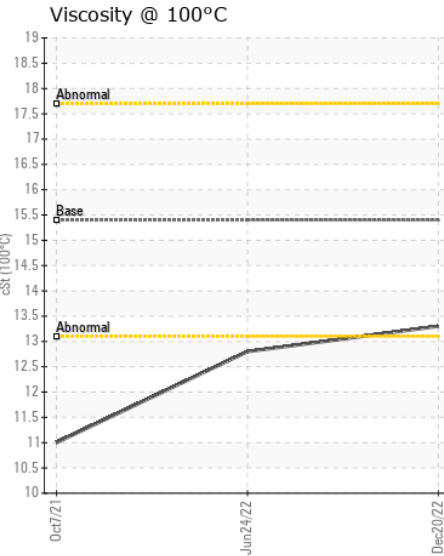
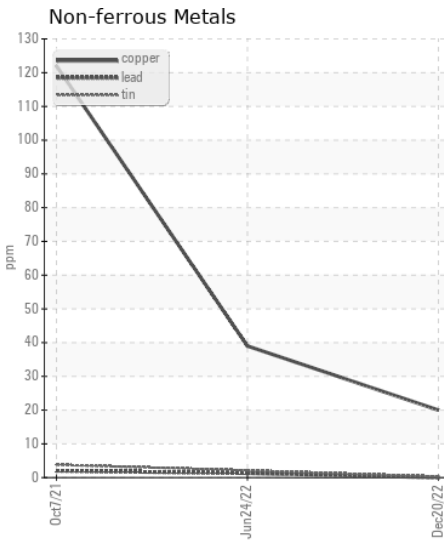
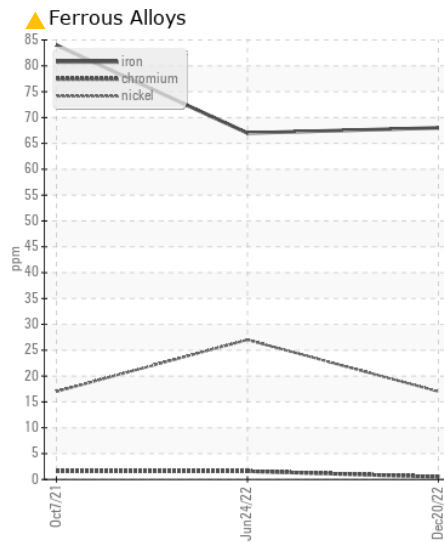
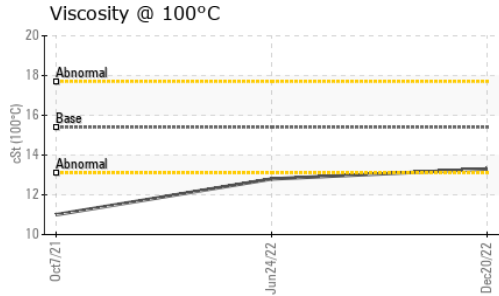
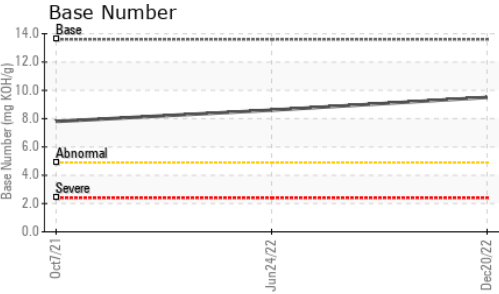
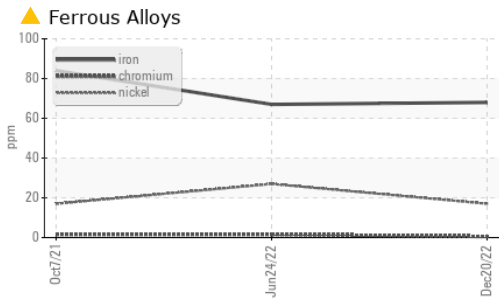
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>120	<b>7</b>	7	8
Potassium	ppm	ASTM D5185m	>20	<b>11</b>	3	16
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	0.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.6</b>	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>10.3</b>	10.4	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.5</b>	25.3	24.4
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m	>31	<b>2</b>	3	8
Boron	ppm	ASTM D5185m		<b>127</b>	117	130
Barium	ppm	ASTM D5185m		<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m		<b>264</b>	247	228
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	2	2
Magnesium	ppm	ASTM D5185m		<b>789</b>	750	713
Calcium	ppm	ASTM D5185m		<b>1552</b>	1505	1621
Phosphorus	ppm	ASTM D5185m		<b>843</b>	763	816
Zinc	ppm	ASTM D5185m		<b>1073</b>	978	996
Sulfur	ppm	ASTM D5185m		<b>3031</b>	2407	2305
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>19.2</b>	19.5	20.3
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9.5</b>	8.6	7.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.3</b>	12.8	▲ 11.0



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : LEC0035526 **Received** : 23 Dec 2022  
**Lab Number** : 05724750 **Diagnosed** : 27 Dec 2022  
**Unique Number** : 10269331 **Diagnostician** : Angela Borella  
**Test Package** : CONST ( Additional Tests: TBN )

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

**LESLIE EQUIPMENT COMPANY**  
 105 TENNIS CENTER DR.  
 MARIETTA, OH  
 US 45750-9765  
 Contact: LEANNE KENDALL  
 KendallLeanne@lec1.com  
 T:  
 F: (740)373-5570